

AMENDMENTS TO THE CLAIMS

1-9. (Canceled)

10. (Original) A method of producing rolling elements for a rolling bearing, comprising:
placing a wire material of predetermined length in a space that is defined by at least first and second molds and has a predetermined shape;
forge-forming the wire material into a blank ball for each rolling elements, said blank ball including an outer diameter portion becoming a rolling contact face that has curvatures in an axial direction thereof and a radial direction normal to the axial direction and including at least one plane; and
removing an extra flesh from the outer diameter portion of the blank ball, to thereby produce each of the rolling elements.

11. (Original) The method according to claim 10, further comprising:
releasing the blank ball thus forge-formed from the space, before the removing step is carried out.

12. (Original) The method according to claim 10, wherein the blank ball thus forge-formed has a connecting portion that is located between the rolling contact face and one of the at least one plane and has a predetermined radius of curvature.

13-32. (Canceled)

33. (New) The method according to claim 10, further comprising:
forming a slightly dimpled recess at a central position of the plane at the same time as forge-forming blank balls.

34. (New) A method of producing rolling elements comprising:

- (a) incorporating a wire material into a mold;
- (b) forge-forming the wire material into a blank ball for each of the rolling elements; and
- (c) ejecting the blank ball outside of the mold.

35. (New) The method according to claim 34, further comprising:

removing an extra flesh from the blank ball, to thereby produce each of the rolling elements.

36. (New) The method according to claim 34, wherein at (b), said blank ball thus forge-formed has an outer diameter portion becoming a rolling contact face that has curvatures in an axial direction thereof and a radial direction normal to the axial direction of the blank ball, at least one plane, and a connecting portion that is located between the rolling contact face and one of the at least one plane and has a predetermined radius of curvature.

37. (New) The method according to claim 34, wherein (c) further includes ejecting the blank ball of each of the rolling elements outside of the mold by an ejector pin.

38. (New) Rolling elements for a bearing that are produced by the method according to claim 10.

39. (New) Rolling elements according to claim 38, wherein each of said spherical rolling elements has two opposite planes.

40. (New) A rolling bearing including a plurality of rolling elements that are produced by the method according to claim 10.

41. (New) The rolling bearing according to claim 40, wherein said rolling bearing comprises:

a first bearing ring having a raceway groove defined by two first raceway surfaces each larger in diameter than a radius of the rolling element, wherein an outer diameter portion of each rolling element always contacts with one of the first raceway surfaces; and

a second bearing ring having a raceway groove with at least one second raceway surface that is larger in diameter than a radius of the rolling element, wherein an outer diameter portion of each rolling element always contacts with one of the at least one second raceway surfaces,

wherein the rolling elements are rotatably disposed between the first and second bearing rings and are alternately arranged in a circumference direction thereof as crossing with one another, and

wherein the outer diameter portions of the rolling elements always contact with the first and second bearing rings at the two points in total one by one.

42. (New) The rolling bearing according to claim 41, wherein the blank ball thus forge-formed has a connecting portion that is located between the rolling contact face and one of the at least one plane and has a predetermined radius of curvature.

43. (New) The rolling bearing according to claim 41, wherein a lubricant storing recess is formed on the at least one plane.